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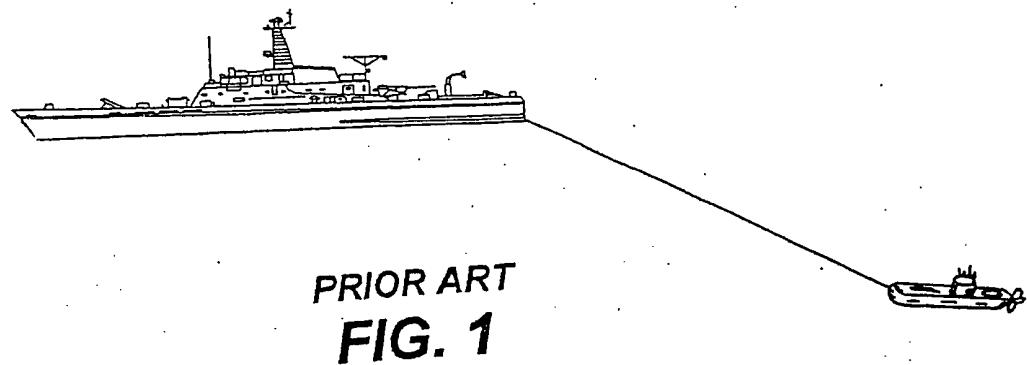
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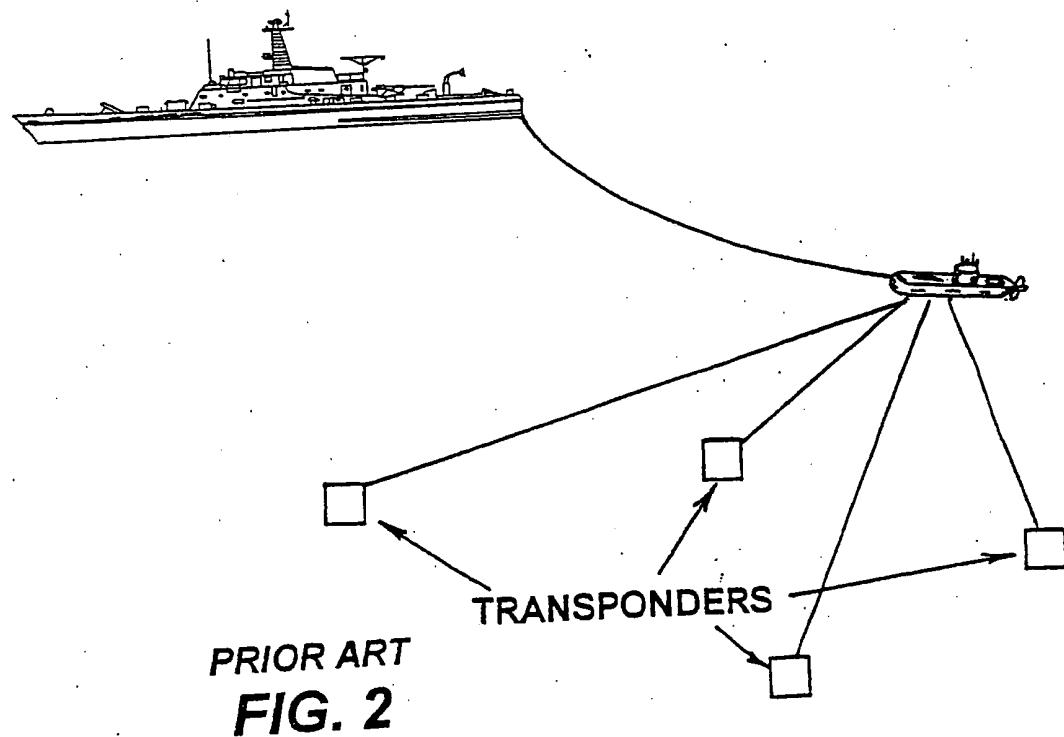
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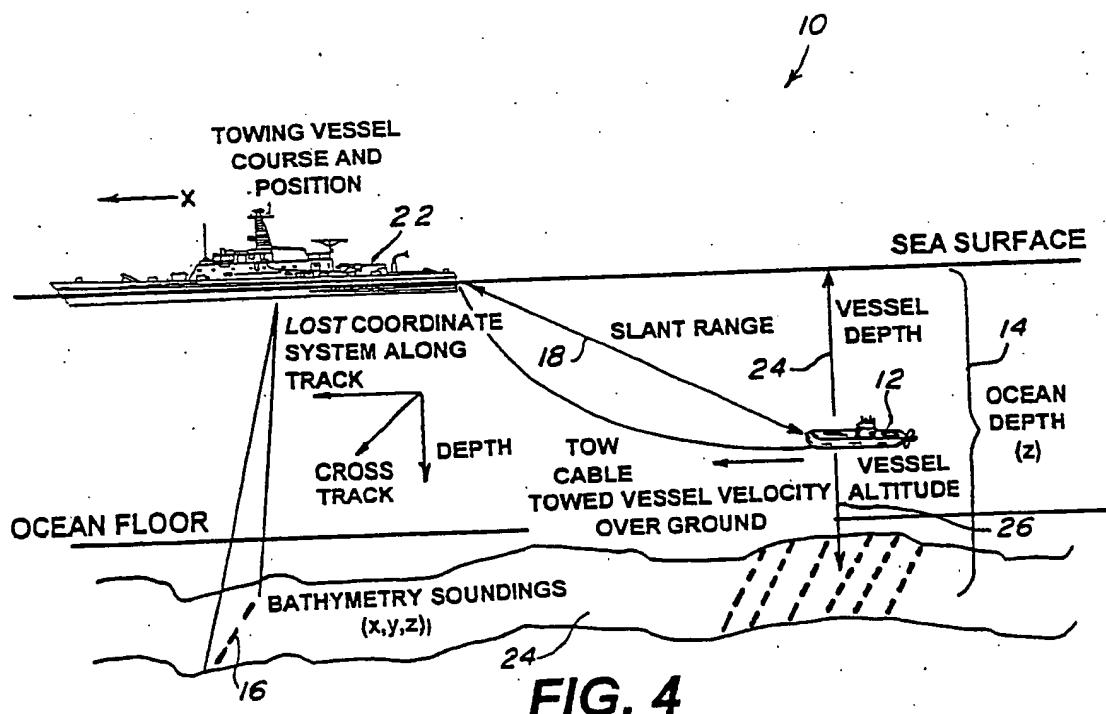
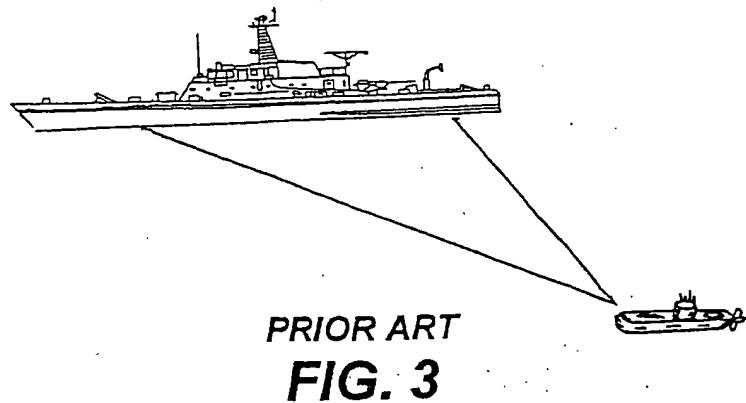
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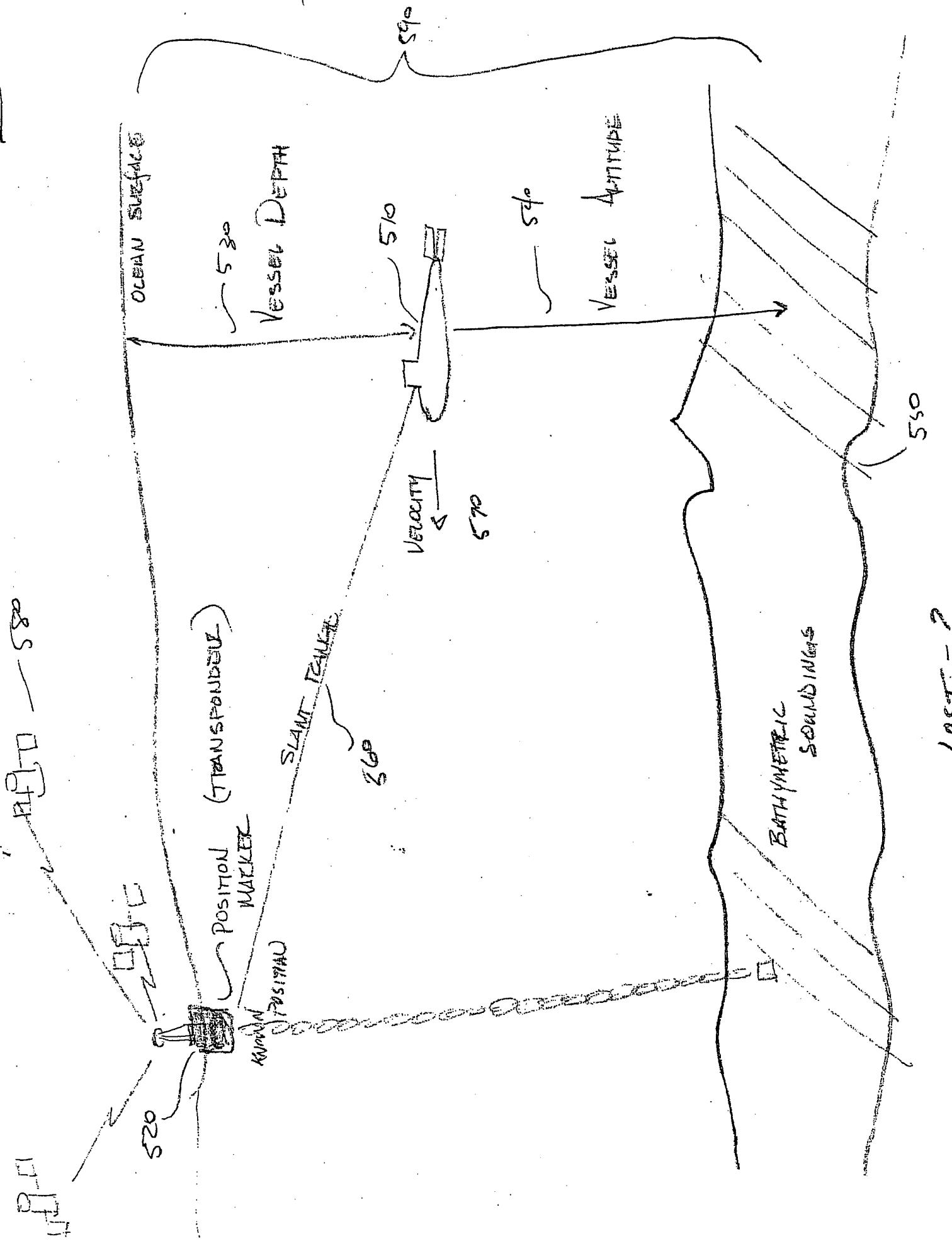
PRIOR ART
FIG. 1



PRIOR ART
FIG. 2



PRIOR ART



EXAMPLE OF LOT 2 EMPLOY MULTIPLE UNITS

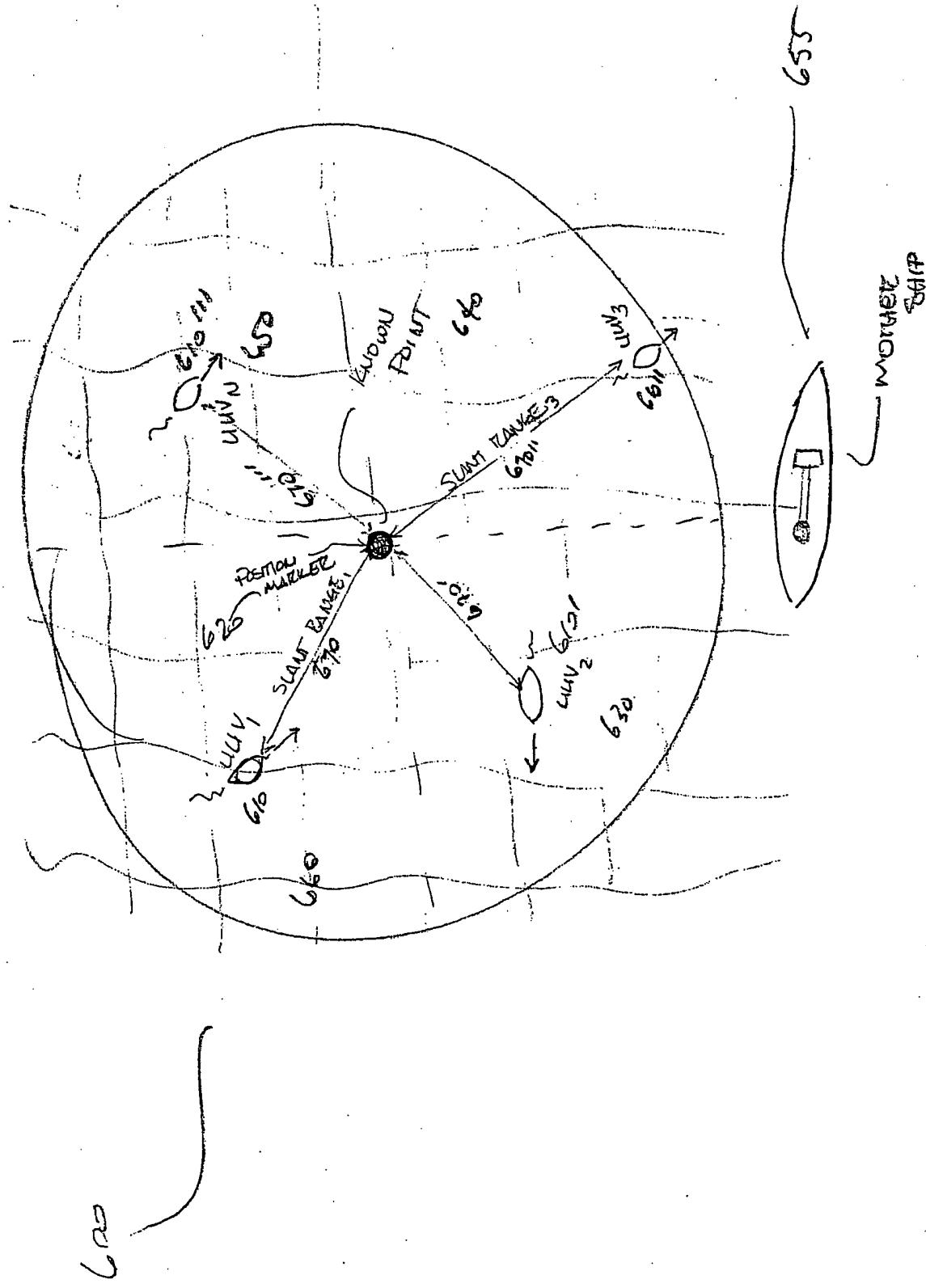
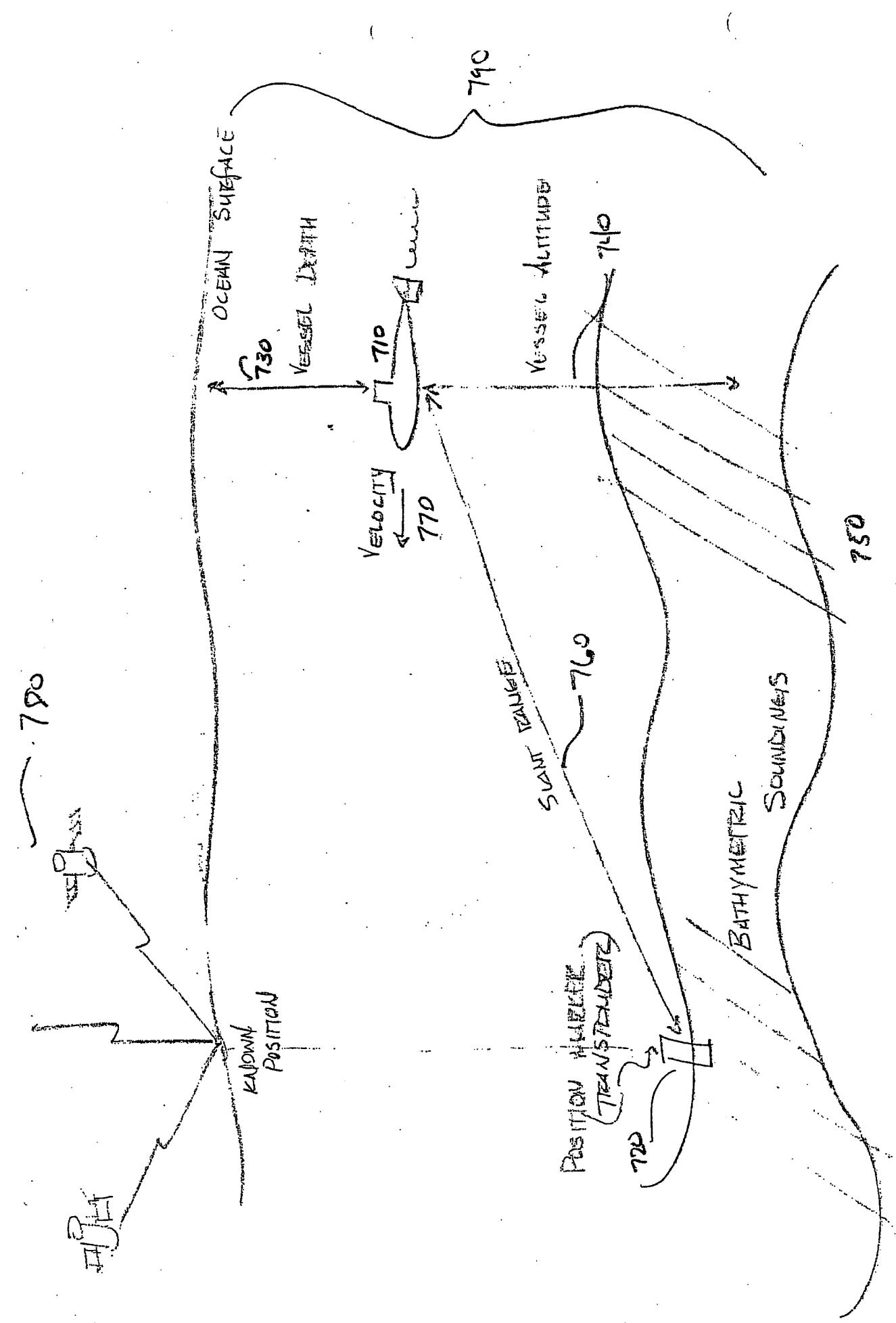


Figure 1



Lost - 2

FIGURE 7

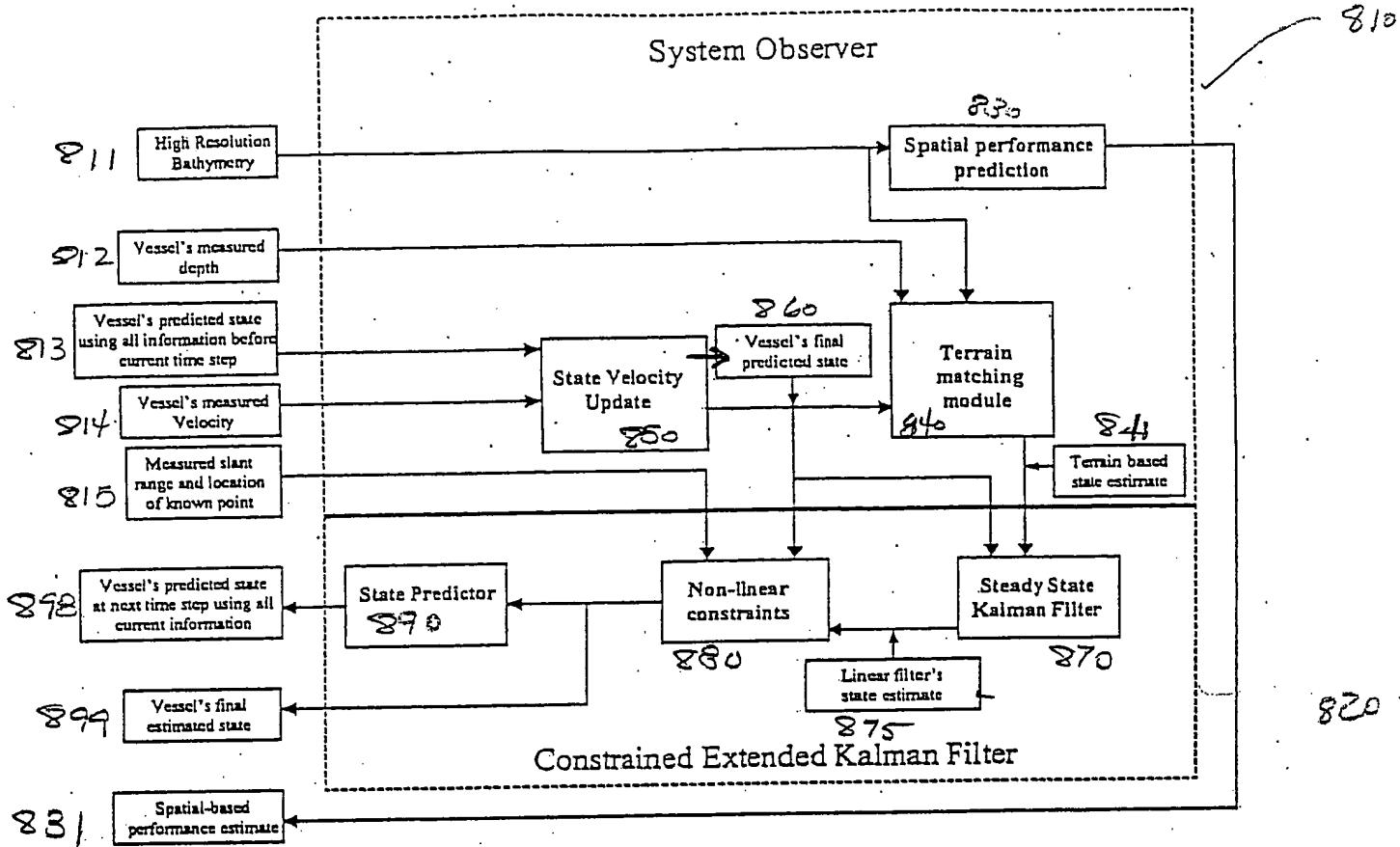
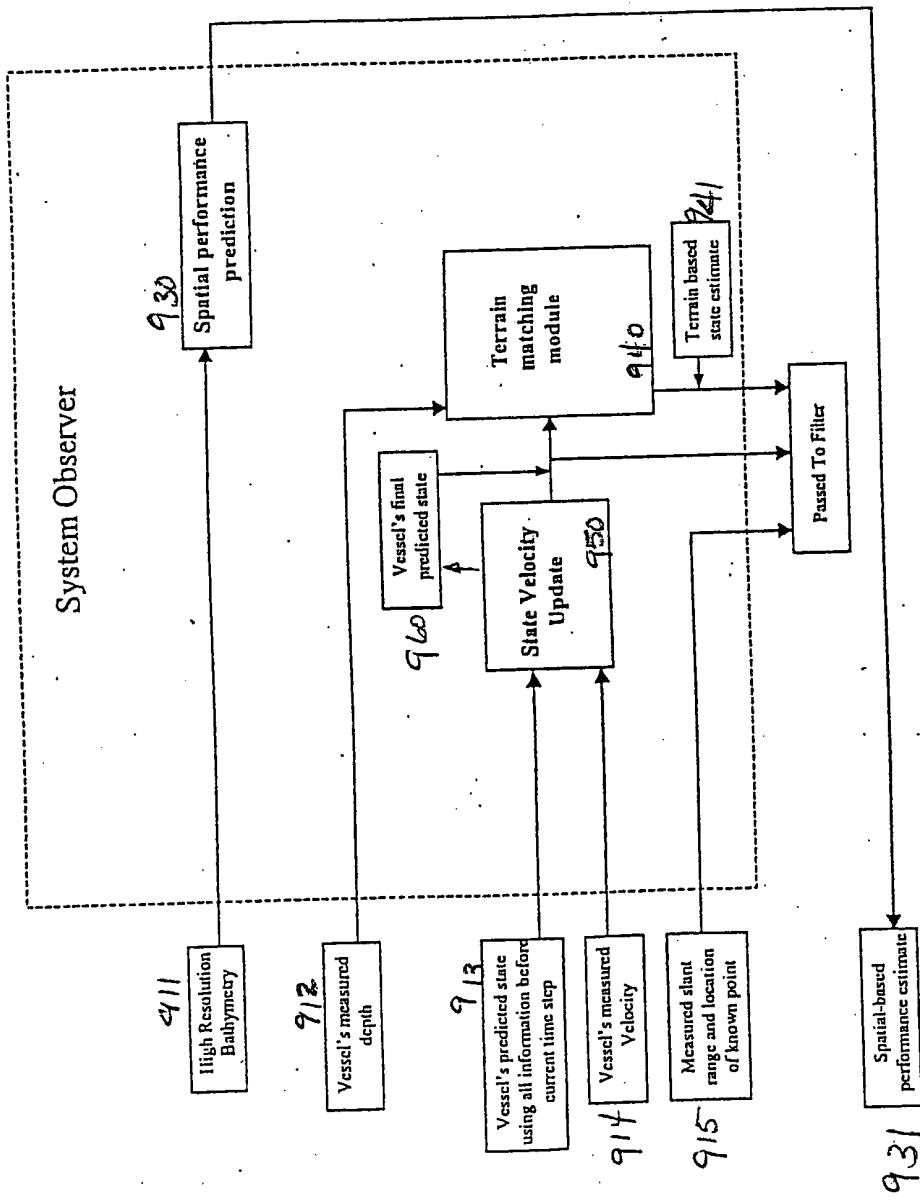
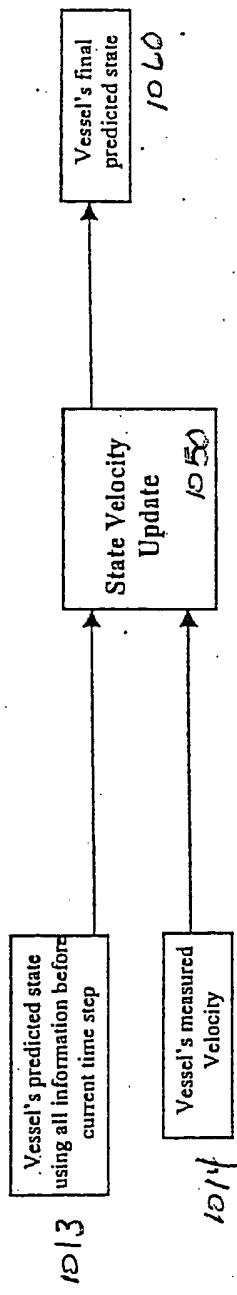


FIGURE 8

flow

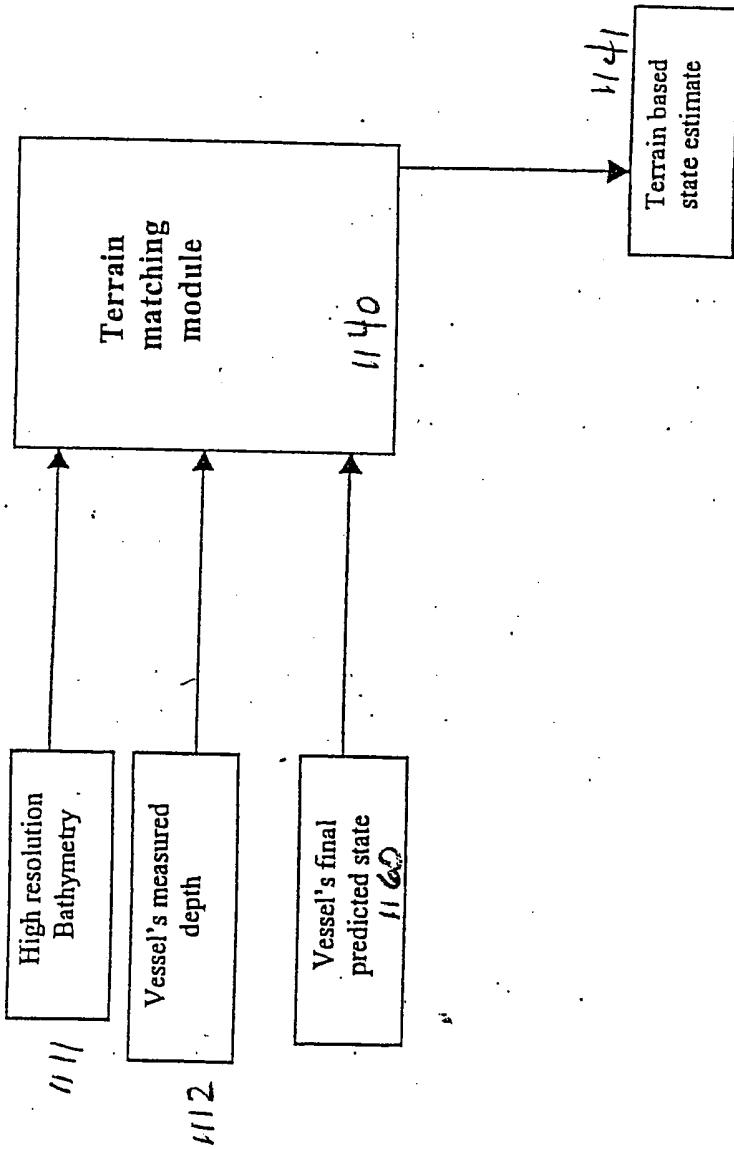
Figure 9
Block diagram of the system observer subsystem showing the signal flow





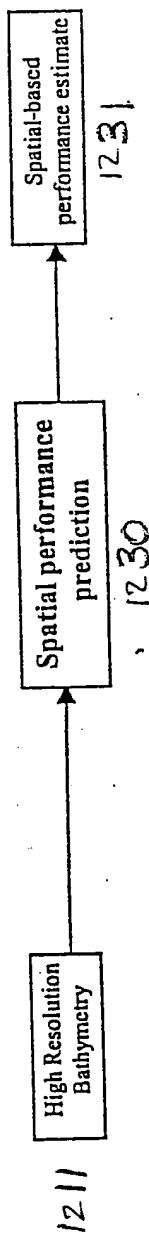
-Input/Output diagram for the state velocity update

Figure 10



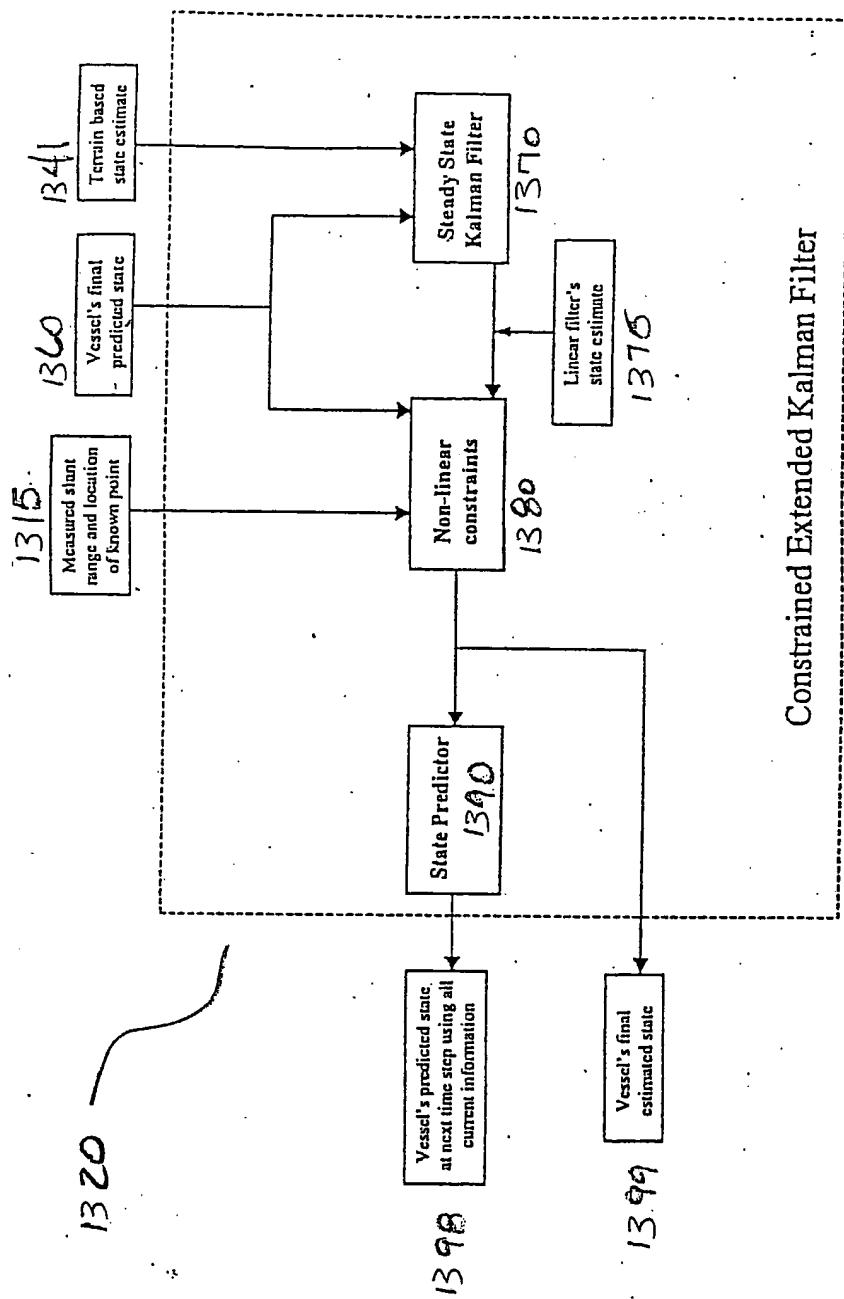
Input/Output diagram for the terrain matching module

Flow = 1



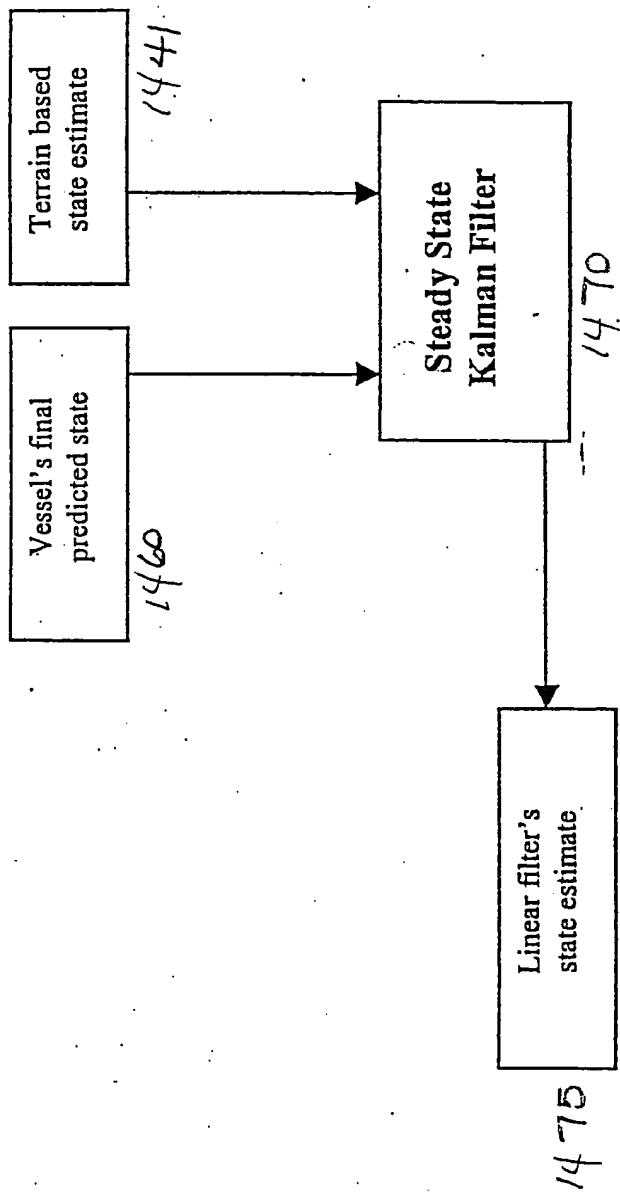
Input/Output diagram for the spatial based performance prediction module

Figure 12



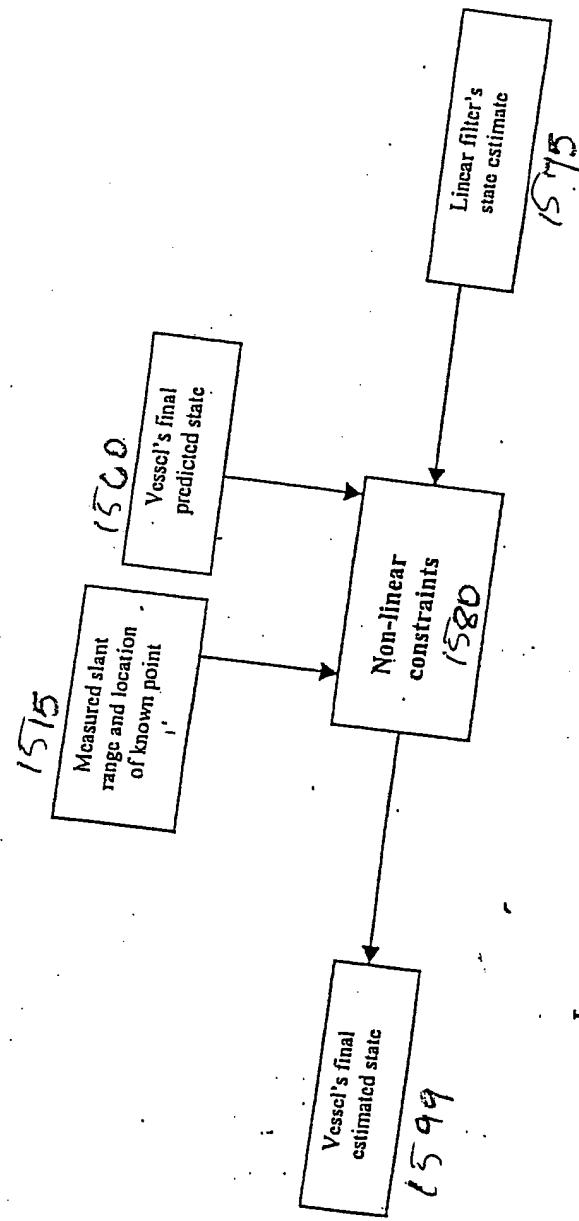
Block diagram of the constrained extended Kalman filter subsystem showing the signal flow

Figure 13



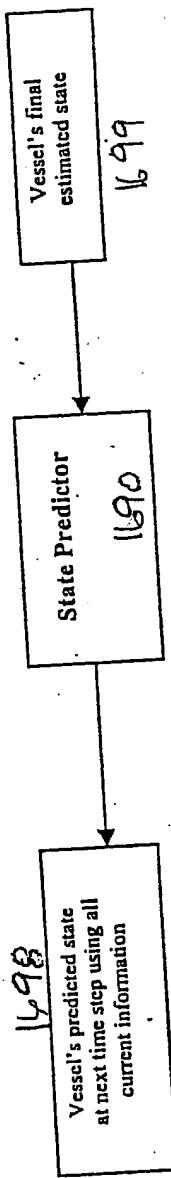
Input/Output diagram for the steady state Kalman filter

Figure 14



Input/Output diagram for the nonlinear constraint module

FIGURE 15



Input/Output diagram for the state predictor

FIGURE 16